

In the Claims

1. [Currently Amended] A wireless communication system comprising:
at least one remote communication device configured to communicate a return link wireless signal responsive to a forward link wireless signal; and
an interrogator including:
a communication station configured to output the forward link wireless signal,
to receive the return link wireless signal outputted from the remote communication device
and to generate a return link communication signal corresponding to the return link wireless signal;
communication circuitry coupled with the communication station and configured to communicate the return link communication signal; and
a housing remotely located with respect to the communication station and including circuitry configured to receive the return link communication signal from the communication circuitry and to process the return link communication signal.
2. [Original] The wireless communication system according to claim 1 wherein the communication station includes a low noise amplifier configured to increase the power of the return link communication signal.

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3. [Original] The wireless communication system according to claim 1 wherein the housing includes adjustment circuitry configured to receive the return link communication signal from the communication circuitry and to adjust an electrical characteristic of the return link communication signal.

4. [Original] The wireless communication system according to claim 3 wherein the adjustment circuitry is configured to output the return link communication signal at a substantially constant level.

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Cont 5. [Original] The wireless communication system according to claim 3 wherein the adjustment circuitry includes automatic gain control circuitry.

6. [Original] The wireless communication system according to claim 5 wherein the automatic gain control circuitry is configured to monitor the power of the return link communication signal and to adjust the power of the return link communication signal responsive to the monitoring.

7. [Original] The wireless communication system according to claim 1 wherein the communication circuitry includes a coaxial RF cable.

8. [Original] The wireless communication system according to claim 1 wherein the communication circuitry includes a plurality of wireless transceivers individually coupled with one of the housing and the communication station.

9. [Original] The wireless communication system according to claim 1 wherein the remote communication device comprises a radio frequency identification device.

10. [Previously Presented] An interrogator of a wireless communication system comprising:

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a plurality of communication stations positioned in different locations and individually configured to output a forward link wireless signal, to receive a return link wireless signal responsive to the outputting, and to generate a return link communication signal corresponding to the return link wireless signal;

communication circuits individually coupled with the communication stations and configured to communicate respective ones of the return link communication signals; and

a housing remotely located with respect to the communication stations and including circuitry configured to receive the return link communication signals from the communication circuits and to process the return link communication signals.

11. [Previously Presented] The interrogator according to claim 10 wherein the communication stations individually include a low noise amplifier configured to increase the power of the return link communication signals.

12. [Previously Presented] The interrogator according to claim 10 wherein the housing includes adjustment circuitry configured to receive the return link communication signals from the communication circuits and to adjust an electrical characteristic of the return link communication signals.

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Cont. 13. [Previously Presented] The interrogator according to claim 12 wherein the adjustment circuitry is configured to output the return link communication signals at a substantially constant level.

14. [Original] The interrogator according to claim 12 wherein the adjustment circuitry includes automatic gain control circuitry.

15. [Previously Presented] The interrogator according to claim 14 wherein the automatic gain control circuitry is configured to monitor the power of the return link communication signals and to adjust the power of the return link communication signals responsive to the monitoring.

16. [Original] The interrogator according to claim 10 wherein the communication circuitry includes a coaxial RF cable.

17. [Original] The interrogator according to claim 10 wherein the communication circuitry includes a plurality of wireless transceivers individually coupled with one of the housing and the communication station.

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Cont 18. [Previously Presented] An interrogator of a wireless communication system comprising:

a plurality of communication stations individually configured to output forward link wireless signals, to receive return link wireless signals responsive to the outputting and to generate return link communication signals corresponding to the return link wireless signals; and

a housing remotely located with respect to at least one of the communication stations and including circuitry configured to receive the return link communication signals from the communication stations and to process the return link communication signals.

19. [Original] The interrogator according to claim 18 wherein the housing includes adjustment circuitry configured to adjust at least one electrical characteristic of the return link communication signals.

20. [Original] The interrogator according to claim 19 wherein the adjustment circuitry includes automatic gain control circuitry.

21. [Original] The interrogator according to claim 18 further comprising a plurality of communication circuits configured to communicate the return link communication signals intermediate respective communication stations and the housing.

22. [Original] The interrogator according to claim 18 wherein the communication stations are individually positioned to receive return link wireless signals within one of a plurality of communication ranges.

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24. [Previously Presented] A method of communicating within a wireless communication system comprising:

- providing an interrogator and at least one remote communication device;
- communicating a forward link wireless signal using a communication station of the interrogator;
- communicating a return link wireless signal using the remote communication device responsive to the communicating of the forward link wireless signal;
- receiving the return link wireless signal within the communication station;

generating a return link communication signal within the communication station corresponding to the return link wireless signal;

communicating the return link communication signal from the communication station using communication circuitry; and

receiving the return link communication signal from the communication circuitry within a housing of the interrogator remotely located from the communication station.

25. [Original] The method according to claim 24 further comprising amplifying the return link communication signal before the communicating the return link communication signal.

26. [Original] The method according to claim 24 further comprising adjusting at least one characteristic of the return link communication signal after the receiving the return link communication signal.

27. [Original] The method according to claim 26 wherein the adjusting provides a return link communication signal having a substantially constant level.

28. [Original] The method according to claim 26 wherein the adjusting comprises adjusting using automatic gain control circuitry.

29. [Original] The method according to claim 24 wherein the providing at least one remote communication device comprises providing a radio frequency identification device.

30. [Original] The method according to claim 24 further comprising processing the return link communication signal after the receiving the return link communication signal.

31. [Currently Amended] A method of communicating within a wireless communication system comprising:

providing an interrogator having a housing and a plurality of communication stations remotely located from the housing;

communicating forward link wireless signals using the communication stations of the interrogator;

receiving return link wireless signals within the respective communication stations of the interrogator responsive to the communicating the respective forward link wireless signals;

generating return link communication signals within the communication stations corresponding to the return link wireless signals;

communicating the return link communication signals from the communication stations using respective communication circuits; and

receiving the return link communication signals within the housing from the communication circuits.

32. [Previously Presented] The method according to claim 31 further comprising amplifying the return link communication signals before the communicating the return link communication signals.

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Cont. 33. [Previously Presented] The method according to claim 31 further comprising adjusting at least one characteristic of the return link communication signals after the receiving the return link communication signals.

34. [Previously Presented] The method according to claim 33 wherein the adjusting provides return link communication signals having a substantially constant level.

35. [Original] The method according to claim 33 wherein the adjusting comprises adjusting using automatic gain control circuitry.

36. [Previously Presented] The method according to claim 31 wherein the communication stations individually receive return link wireless signals within one of a plurality of communication ranges.

37. [Previously Presented] The method according to claim 31 further comprising processing the return link communication signals after the receiving the return link communication signals.

38. [Previously Presented] The wireless communication system according to claim 1 wherein the interrogator comprises a plurality of the communication stations.

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39. [Previously Presented] The method according to claim 24 wherein the providing comprises providing the interrogator comprising a plurality of the communication stations.

40. [Previously Presented] The wireless communication system according to claim 1 wherein the at least one remote communication device is configured to receive the forward link wireless signal and to communicate the return link wireless signal responsive to receiving the forward link wireless signal.

41. [Currently Amended] The method according to claim 24 further comprising receiving the ~~return~~ forward link wireless signal within the at least one remote communication device, and wherein the communicating the return link wireless signal is responsive to the receiving.

42. [Previously Presented] An interrogator comprising:

a plurality of communication stations configured to output a plurality of return link communication signals, and wherein the communication stations individually comprise a low noise amplifier configured to increase the power of a respective one of the communication signals;

a plurality of coaxial cables coupled with respective communication stations and configured to communicate respective return link communication signals of the respective communication stations.

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Cont. 43. [Previously Presented] The interrogator of claim 42 wherein the communication stations are individually configured to:

output a forward link wireless signal; and

receive a return link wireless signal responsive to the outputting of the forward link wireless signal to implement radio frequency identification device communications.

44. [New] The wireless communication system according to claim 1 wherein the at least one remote communication device and the interrogator are configured to implement radio frequency identification device (RFID) communications.

45. [New] The wireless communication system according to claim 1 wherein the communication station is configured to generate the return link communication signal comprising data received within the return link wireless signal.

46. [New] The interrogator according to claim 10 wherein the communication stations are individually configured to generate the return link communication signal comprising data received within the return link wireless signal.

47. [New] The interrogator according to claim 18 wherein the communication stations are configured to generate the return link communication signals comprising data received within respective ones of the return link wireless signals.

48. [New] The method according to claim 24 wherein the generating comprises generating the return link communication signal to comprise data received within the return link wireless signal.

49. [New] The method according to claim 31 wherein the generating comprises generating the return link communication signals to comprise data received within respective ones of the return link wireless signals.